

AMENDMENTS TO THE CLAIMS

Following is a listing of all claims in the present application, which listing supersedes all previously presented claims:

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1. (Cancelled)

2. (Currently Amended) The system as claimed in claim 12, ~~claim 1~~, wherein the connection pipe comprises an inlet flow path and an outlet flow path for providing fluid communication between the heat pipe and the cooling system.

3. (Currently Amended) The system as claimed in claim 12, ~~claim 1~~, wherein the connection pipe comprises:

an outlet connection pipe for providing fluid communication from the heat pipe to the cooling system; and

an inlet connection pipe for providing fluid communication from the cooling system to the heat pipe.

4. (Original) The system as claimed in claim 3, wherein the control unit comprises:

an outlet fluid control unit installed in the outlet connection pipe; and

an inlet fluid control unit installed in the inlet connection pipe.

5. (Currently Amended) The system as claimed in claim 4, wherein the outlet fluid control unit is one~~selected from the group consisting~~ of an automated pump and a valve and the inlet fluid control unit is one~~selected from the group consisting~~ of a valve, an automatic pump, and a manual pump.

6. (Withdrawn) The system as claimed in claim 3, wherein the control unit comprises:

a first outlet fluid control unit and a second outlet fluid control unit sequentially installed in the outlet connection pipe; and

an inlet fluid control unit installed in the inlet connection pipe.

7. (Withdrawn – Currently Amended) The system as claimed in claim 6, wherein the first outlet fluid control unit is one selected from the group consisting of an automatic valve and a manual valve, the inlet fluid control unit is one selected from the group consisting of an automatic valve, a manual valve, and a pump, and the second outlet fluid control unit is a pump.

8. (Withdrawn – Currently Amended) The system as claimed in claim 12, claim 21, wherein at least one of the first and second coolant storage tanks includes a wick therein, and the subsidiary cooling system further comprises:

~~a coolant storage tank for storing the liquid coolant, the coolant storage tank having a wick formed therein;~~

~~a cooling unit installed at the coolant storage tank for cooling the working fluid supplied from the heat pipe; and~~

~~a pressurizing unit for pressurizing the liquid coolant during a process of cooling a top surface of the heat pipe, the top surface.~~

9. (Cancelled)

10. (Currently Amended) The system as claimed in claim 12, claim 1, wherein the control unit is at least one selected from the group consisting of a pump and a valve.

11. (Previously Presented) A baking system, comprising:

a heat pipe including a top surface for receiving a wafer to be baked, the heat pipe to be filled with a predetermined amount of working fluid and having wicks formed on sides and a ceiling thereof for supplying the working fluid;

a heater for heating the top surface by heating the working fluid;

a cooling system for cooling the working fluid, the cooling system being a subsidiary cooling apparatus that contains a liquid coolant to be exchanged with the working fluid from the heat pipe;

a connection pipe for providing fluid communication between the heat pipe and the cooling system; and

a control unit for controlling a flow of the working fluid through the connection pipe;

wherein the subsidiary cooling system includes:

a first coolant storage tank for storing the liquid coolant;

a first cooling system installed at the first coolant storage tank for cooling the working fluid supplied from the heat pipe; and

a second coolant storage tank in fluid communication with the first coolant storage tank, wherein the first cooling system extends to the second coolant storage tank.

12. (Previously Presented) A baking system, comprising:

a heat pipe including a top surface for receiving a wafer to be baked, the heat pipe to be filled with a predetermined amount of working fluid and having wicks formed on sides and a ceiling thereof for supplying the working fluid;

a heater for heating the top surface by heating the working fluid;

a cooling system for cooling the working fluid, the cooling system being a subsidiary cooling apparatus that contains a liquid coolant to be exchanged with the working fluid from the heat pipe;

a connection pipe for providing fluid communication between the heat pipe and the cooling system; and

a control unit for controlling a flow of the working fluid through the connection pipe;

wherein the subsidiary cooling system includes:

a first coolant storage tank for storing the liquid coolant;

a first cooling system installed at the first coolant storage tank for cooling the working fluid supplied from the heat pipe;

a second coolant storage tank in fluid communication with the first coolant storage tank; and

a second cooling system installed at the second coolant storage tank.

13. (Original) The system as claimed in claim 11, further comprising:  
an intermediate connection pipe for providing fluid communication between the  
first coolant storage tank and the second coolant storage tank; and  
an intermediate fluid control unit installed in the intermediate connection pipe.

14. (Withdrawn – Currently Amended) The system as claimed in claim  
12, claim 21, further comprising a subsidiary heater installed in the connection pipe  
between an inlet of the heat pipe and the subsidiary cooling system to heat a fluid flowing  
through the connection pipe.

15. (Withdrawn – Currently Amended) The system as claimed in claim  
12, claim 9, further comprising a subsidiary heater installed at the first coolant storage  
tank to heat a fluid supplied into the heat pipe.

16. (Currently Amended) The system as claimed in claim 12, claim 4, wherein  
the working fluid is at least one ~~selected from the group consisting~~ of water, deionized  
water, acetone, and methyl.

17. (Withdrawn – Currently Amended) The system as claimed in claim  
11, claim 1,  
wherein the first cooling system is a cooling unit installed to at least one of extend  
between and to overlap respective portions of ~~in~~ the connection pipe for cooling the  
working fluid flowing through the connection pipe.

18. (Withdrawn – Currently Amended) The system as claimed in claim 17,  
wherein the cooling unit is installed to wrap around a portion of at least one of the first  
and second coolant storage tanks. ~~the connection pipe.~~

19.-21. (Cancelled)

22. (Currently Amended) The system as claimed in claim 12, ~~claim 21~~, wherein the control unit is installed in the connection pipe and controls flow of the liquid coolant.

23. (New) The system as claimed in claim 12, wherein the first cooling system and the second cooling system are portions of a single cooling system such that the first cooling system corresponds to a portion of the single cooling system overlapping the first coolant storage tank and the second cooling system corresponds to another portion of the single cooling system overlapping the second coolant storage tank.